

Claims

[Claim 1]

A manufacturing method for Al-Mg-Si aluminum alloy sheets with excellent bake hardenability, characterized in that

- (a) a molten Al-Mg-Si aluminum alloy comprising Mg: 0.3 – 1.0 wt%, Si: 0.3 – 1.5 wt%, Cu: 1.0 wt% or below (including 0%), Fe: 1.2 wt% or below (including 0%), and according to need, containing Mn: 0.1 – 0.7 wt% and/or Cr: 0.1 – 0.3 %, and the remnant being Al is twin belt cast at an average cooling rate of 20 degrees C per second or above at the time of solidification,
- (b) at this time, the temperature of the ingot coming out of the casting machine is 250 degrees C or below,
- (c) then, rolling is done to the final sheet thickness by only cold rolling, without homogenization or hot rolling,
- (d) and solution treatment is done in a continuous annealing furnace.

[Claim 2]

A manufacturing method for Al-Mg-Si aluminum alloy sheet with excellent bake hardenability, characterized in that

- (a) a molten Al-Mg-Si aluminum alloy containing Mg: 0.3 – 1.0 wt%, Si: 0.3 – 1.5 wt%, Cu: 1.0 wt% or below (including 0%), Fe: 1.2 wt% or below (including 0%), and according to need, containing Mn: 0.1 – 0.7 wt% and/or Cr: 0.1 – 0.3 %, and the remnant being Al is twin belt cast at an average cooling rate of 20 degrees C per second or above at the time of solidification,
- (b) at this time, the ingot is cooled so that the ingot temperature is 250 degrees C or below within 2 minutes from pouring the molten metal into the casting machine,
- (c) then, rolling is done to the final sheet thickness by only cold rolling, without homogenization or hot rolling,
- (d) and solution treatment is done in a continuous annealing furnace.